

WHAT IS CLAIMED IS:

1. A bending-resistant bar for reshaping human or animal bone with bone replacement material by bridging with said bar at least one reshaping location; said bar having a flat cross-section; said bar comprising at least two slotted holes extending in a longitudinal direction of said bar and distributed evenly along the length of said bar; said bar having longitudinal edges with notches; said bar having an underside having transverse grooves extending perpendicularly to said longitudinal direction over the entire width of said bar; wherein said notches and said transverse grooves provide predetermined bending locations for said bar.

2. A bar according to claim 1, wherein said bar has a convex top side.

3. A bar according to claim 1, wherein said notches and said transverse grooves are rated break points.

4. A bar according to claim 1, wherein said bar has rated break points.

5. A bar according to claim 1, wherein said notches are positioned between said slotted holes.

6. A bar according to claim 1, wherein said transverse grooves open into said notches.

7. A bending-resistant bar for reshaping human or animal bone with bone replacement material; said bar having a flat cross-section; said bar comprised of two end portions, adapted to rest on the bone, and a raised bridge portion connecting said two end portions and ^{adapted to bridge} bridging at least one reshaping location; wherein said end portions have penetrations adapted to receive fastening means for attaching the said bar to the bone.

8. A device for reshaping human or animal bone with bone replacement material, said device comprising:

at least two spaced apart implants adapted to be implanted in the bone so as to project by a projecting height from the bone and having a support surface facing away from the bone;

a bending-resistant bar placed onto said support surfaces and spaced from the bone by said projecting height of said implants to bridge at least one reshaping location filled with bone replacement material during bone regeneration;

fasteners penetrating said bar and engaging said implants to clamp said bar at said supporting surface of said implants.

9. A device according to claim 8, wherein said bar has at

least two penetrations distributed in a longitudinal direction of said bar and wherein said at least two spaced apart implants engage said penetrations.

5 10. A device according to claim 8, wherein said at least two spaced apart implants consist of titanium.

11. A device according to claim 8, wherein said penetrations are slotted holes extending lengthwise in said longitudinal direction.

10 12. A device according to claim 8, wherein said bar has a flat cross-section.

13. A device according to claim 8, wherein an upper side of said bar is convex.

15 14. A device according to claim 8, wherein said bar has areas of reduced cross-sectional size defining bending locations for bending said bar. 107

15 15. A device according to claim 14, wherein said bending locations are located at lateral edges of said bar remote from said penetrations or at an underside of said bar. 103

20 16. A device according to claim 14, wherein said bending locations are break-off locations. 103

17. A device according to claim 8, wherein said implants

are pin-shaped and have a smooth mantle surface so that said implants are rotatable about a longitudinal axis when implanted.

18. A device according to claim 8, wherein said implants have an outer thread for position-adjustment in the bone.

5 19. A device according to claim 8, wherein said fasteners are located at a head portion of said implants.

10 20. A device according to claim 19, wherein said fasteners are nail-shaped or screw-shaped elements and wherein said implants have receiving bores into which said fasteners are inserted.

21. A device according to claim 19, wherein said fasteners secure a membrane on said bar.

22. A device according to claim 8, wherein said implants are adapted to secure dental replacements thereat.

15 23. A device according to claim 8, wherein said fasteners have a head countersunk into an outer cross-sectional area of said bar.

20 24. A device according to claim 8, wherein said bar is designed to support a membrane or the periosteum of the bone, wherein the membrane or the periosteum retain the connective tissue and cover the reshaping location.

25. A device according to claim 8, wherein an underside of said bar is concave.

5 26. A device according to claim 8, wherein said fasteners are adapted to secure permanently or temporarily at least one of a dental prosthesis, a cosmetic device and a reconstructive device positioned external to the skin.

27. A device according to claim 26, wherein said fasteners are screws or pins having longitudinal bores accessible from a head portion of said fasteners.

10 28. A device according to claim 27, wherein said longitudinal bores have an inner thread.

29. A device according to claim 27, wherein said longitudinal bores are blind bores.

15 30. A pin-shaped implant for securing a bar, said implant adapted to be implanted in the bone so as to project by a projecting height from the bone and having a support surface facing away from the bone when said implant is implanted, said support surface adapted to support the bar, said implant having a smooth mantle surface so that said implant can be rotated about a longitudinal axis
20 when implanted in order to allow height adjustment of said implant relative to the bone.

31. An implant according to claim 30, wherein said mantle surface has an outer thread for height-adjustment relative to the bone.

5 32. An implant according to claim 31, comprising a fastener penetrating the bar for fastening the bar to said implant and optionally a membrane placed on the bar.

10 33. An implant according to claim 32, wherein said fastener is a nail-shaped or screw-shaped element and wherein said implant has a receiving opening into which said fastener is inserted.

34. An implant according to claim 33, wherein said fastener has a head countersunk into an outer cross-sectional area of the bar.

15 35. An implant according to claim 33, wherein said fastener serves to secure permanently or temporarily at least one of a dental prosthesis, a cosmetic device and a reconstructive device after completion of reshaping.

20 36. An implant according to claim 33, wherein said fastener is a screw or a pin having a longitudinal bore accessible from a head portion of said fastener.

37. An implant according to claim 36, wherein said

longitudinal bore has an inner thread.

38. An implant according to claim 37, wherein said longitudinal bore is a blind bore.

39. An implant according to claim 36 for securing dental replacements thereat.

40. A method for reshaping human or animal bone with bone replacement material; said method comprising the steps of:

implanting implants according to claim 30 into the bone;

mounting a bar according to claim 1 on said implants to bridge at least one reshaping location;

height-adjusting the bar relative to the bone during reshaping by adjusting the implants as reshaping progresses;

removing the bar and optionally the implants after completion of reshaping.